



# PRESENTATION

---

**Students** from Weber State University Department of Construction & Building Sciences made up the senior project team representing departments:

- Building Design & Construction
- Interior Design
- Construction Management

Our team constructed the all-electric home they designed, in collaboration with Ogden City, on the corner of 28th street and Quincy Avenue in Ogden, Utah.

The 2,540 total square foot home (1270 on main and 1270 finished basement) incorporates portable battery backup technology to allow the home to maintain critical loads for up to 72 hours if the electrical grid were to be down in a natural disaster or emergency. Not only does the Solar Array generate enough energy to offset the energy usage of the home annually, it also generates enough electricity to charge an electric vehicle to travel 20 miles per day. Occupants are able to monitor their usage via Solar Edge App and Emporia Vue app, helping users understand their energy consumption.



# 06.

## PRESENTATION

**From the street,** other than the solar panels, there is no distinct differentiation that this house is a net positive, all electric home. Capable of producing all of its own energy annually and maintaining all of its critical loads in excess of a week, this home also charges an electric car to drive up to 20 miles per day in the detached garage. This was on purpose! We wanted to prove that you can build a net zero home without it "sticking out" in order to appeal to a broad audience. Average size of single family house along the Wasatch Front is 2200 sq. ft. Our home meets the demands of large families, multi-generational families and potential AHU opportunities.



We designed large overhangs to nearly eliminate solar heat gain in the summer due to shade angles. We maximized the windows on the East side to allow solar heat gain in the winter, but limited the west facing windows and eliminated all windows on the south to minimize solar heat gain during the summer.



The view of the picturesque Rocky Mountains are to the East. All of the living space was intentionally placed on the East side of the home in conjunction with large windows to allow ample daylight and stunning sunrises and sunsets.



The home is long and narrow, therefore long site lines were designed to allow the feeling of a more open floor plan. All upstairs hallways were eliminated to open up the spacious feel of the floor plan and to accommodate for ADA accessibility.

All potential buyers who walked through the home commented on how much bigger it felt than it appeared from the exterior. We knew we were successful when the sub-contractors, who were working on the build, started asking if they could buy the home.

## Ribbon Cutting AKA "Unplugging"

In the midst of COVID-19, Weber State University had a very cautious stance with group gatherings, prioritizing public safety. Our ribbon cutting was held October 13, 2020 and was restricted to a limited, less than 50 in person group, along with a live facebook stream.

Prior to ribbon cutting, we gave private tours to Mayor Caldwell, of Ogden Utah, and other dignitaries, showcasing the collaborative efforts between WSU and Ogden City.



### NET ZERO HOUSE

*Open house and ribbon cutting!*

Come celebrate Weber State University's newly completed, all-electric home in central Ogden. Students designed and managed construction of the net-zero home, which is also a top-10 finalist internationally for the 2020 Department of Energy Solar Decathlon. For more information about the house, visit [weber.edu/solardecathlon](http://weber.edu/solardecathlon).

Oct. 13, 2020 @ 4 p.m.

WEBER STATE UNIVERSITY  
Engineering. Applied. Business. & Tourism

# 06. PRESENTATION

**The Kiosk** was a collaborative design effort with the University's Interior Design department and the Solar Decathlon student team. The kiosk purpose was to showcase the new and innovative building materials used on the home. This kiosk consists of an accordion wall, shelving, media displays, a 3D printed model of the locally built home, sponsor exhibit, and interactive items from the build.



The open house was held October 13, 2020 and was attended by the University President, Department Deans and Professors, Ogden City dignitaries, Project Managers, new owners and by the students who were involved in the build.

Proudly on display, the kiosk was constructed in the detached garage incase of any inclement weather. Small groups were able to interact with the exhibit and immerse themselves with further details of the build.



## Online Presence

was focused on offering the public as little or as much information regarding our Net Zero build. An organized website was key as we shared house plans, project manuals, sub-contractor and supplier information. Build out of the wire frame, communication with our WSU website specialist and update coordination was all completed by a dedicated student who had no prior experience with website design and grew exponentially from the opportunity.

Instagram was the preferred platform for content sharing due to our followers demographic's age and ability to quickly load content. Efforts could have been expanded to Linked In, Facebook and Twitter but would have required more manpower to manage those social media sites. Interestingly, because of Instagram, our sub-contractors with limited English skills were able to understand our project through Instagram translation, increasing understanding of why this build was different than other residential job sites.

Between the website and Instagram account, our student group could have increased followers through a more proactive recruitment effort. Because we starting our online platforms back in December of 2019, we stayed ahead of the project build, giving our small group of followers real time, relevant content.

Total of 2,343 page views since website launched January 21, 2020. Those viewers spent close to 3 minutes on the website, 50% came back for a second look. Many stayed on our main page, with 1/3 viewing student profiles. Our heaviest traffic occurred shortly after the Standard Examiner article with 42 sessions on July 7, 2020.

# 06.

## PRESENTATION

### Online @

#### Website:

<https://weber.edu/solardecathlon>

#### Instagram:

wsusolardecathlon2020



## MEDIA TIMELINE

JANUARY 10 INSTAGRAM ACCOUNT LIVE

FEBRUARY 10 UTAH CONSTRUCTION & DESIGN ARTICLE

FEBRUARY 20 WEBSITE LIVE

MARCH 06 WSU PRESS RELEASE

MAY 22 KUTV CHANNEL 2 NEWS

MAY 27 DESERET NEWS ARTICLE

MAY 27 KSL NEWS ARTICLE

JUNE 04 BUILD TO SUCCESS STUDENT TOUR

JUNE 16 OPENING DOORS PODCAST

SEPT 28 STANDARD EXAMINER ARTICLE

OCT 9 NEW OWNER DRAWING

OCT 13 RIBBON CUTTING CEREMONY

ANYTIME NEIGHBOR/SMALL GROUP TOURS

## WSU SUPPORTED 9 DIFFERENT MEDIA OUTREACH EFFORTS:

- Instagram account; 145 followers, 36 posts
- Utah Construction & Design Article
- Website: [www. weber.edu/solardecathlon](http://www.weber.edu/solardecathlon)
- WSU Press Release
- KUTV Channel 2 News
- Deseret News Article; valued at \$6773.76 in marketing
- KSL News Article
- Opening Doors Podcast; 3,600 people reached, 100+ downloads
- Standard Examiner Article; valued at \$1967.62 in marketing



**The Goal** has always been to create a sustainable **revolving fund**, supporting WSU community builds, fostering student education and advancing green building concepts from academia research into common industry practices. This home has been a teaching tool for high school, college and University students along side sub-contractors and craftsmen, all being exposed to new methods and materials changing the future of residential construction. Data will be gathered and recorded prior to and after the sale of the current home, starting the design phase for the next collaborative Net Zero build.

